

## CLAIMS

What is claimed is:

1           1.       A system for providing a server-on-a-USB on a computing device, the  
2       computing device including at least a processor and an optional mass storage device, the  
3       system comprising:  
4               bus interface logic for interfacing between the computing device and the  
5       system, the bus interface logic allowing the computing device to detect the system; and  
6               a memory for storing a server image for the server and a USB Local Control  
7       Program, the USB Local Control Program for booting up the server and preparing the  
8       computing device for use as the server, the server image being provided to the computing  
9       device using the USB Local Control Program.

10  
1           2.       The system of claim 1 further comprising:  
2               a plurality of control button connectors;  
3               a plurality of buttons, the plurality of control button connectors for allowing  
4       the server to be turned on, shut down gracefully, or restored to its initial state, by a single  
5       press of at least one of the plurality of buttons connected to the plurality of control button  
6       connectors; and  
7               a plurality of LED and LCD connectors allowing the system status to be  
8       displayed or shown.

9  
1           3.       The system of claim 1 wherein the memory is a flash memory.  
2

- 1           4.     The system of claim 1 further comprising: control logic.
- 2
- 1           5.     The system of claim 4 further comprising:
- 2                 a push button; and wherein the control logic further includes a one-button init
- 3 connector, coupled with the push button, for restoring the server to a default state in
- 4 response to the push button being depressed for a particular time.
- 5
- 1           6.     The system of claim 4 further comprising:
- 2                 a push button; and wherein the control logic further includes a shut-down
- 3 connector, coupled with the push button, the shut-down connector shutting down the server
- 4 gracefully if the push button is pressed for a particular time.
- 5
- 1           7.     The system of claim 4 wherein the control logic further includes a power-on
- 2 connector; and wherein the control logic further includes a power-on connector connecting
- 3 to the power-on connector of the system board, coupled with the shut-down push button, the
- 4 power-on connector further turns the power supply on if the push button is depressed when
- 5 the computing device is supplied with AC power.
- 1           8.     The system of claim 4 further comprising: a light emitting diode (LED)
- 2 connector; and wherein the control logic further includes a status LED connector coupled
- 3 with the LED for indicating a operating status of the system.
- 1           9.     The system of claim 4 further comprising:

2 a light emitting diode (LED) connector; and wherein the control logic further  
3 includes a power-on LED connector coupled with the LED for indicating a power status of  
4 the system.

1 10. The system of claim 4 further comprising:  
2 a liquid crystal display (LCD) connector; and wherein the control logic  
3 further includes a LCD display connector coupled with the LCD for indicating a operating  
4 status of the system.

1 11. The system of claim 1 wherein the bus interface logic, the USB local control  
2 logic, a flash memory and a set of control button connectors, light emitting diodes (LED)  
3 connectors and a liquid crystal display (LCD) connector are incorporated into a single board.

1 12. A method for providing a server-on-a-USB on a computing device, the  
2 computing device including at least a processor and an optional mass storage device, the  
3 method comprising the steps of:

4 (a) providing a board including bus interface logic, a USB Local Control  
5 Program, a flash memory, the bus interface logic for interfacing between the computing  
6 device and the system, the bus interface logic allowing the computing device to detect the  
7 system, the USB Local Control Program coupled with the bus interface logic, the USB Local  
8 Control Program for booting up the server and preparing the computing device for use as the  
9 server, the memory for storing a server image for the server, the server image being provided  
10 to the computing device using the USB Local Control Program; and

11 (b) allowing a user to utilize the server access using the board.

1 13. The method of claim 12 wherein the board further includes a plurality of  
2 control button connectors, a plurality of light emitting diodes (LED) connectors and a liquid  
3 crystal display (LCD) connector, the plurality of control button connectors allowing the  
4 server to be turned on, shut down gracefully, or restored to an initial state, by a single press  
5 of buttons connected to the plurality of control button connectors, the plurality of LED  
6 connectors and the LCD connector allowing the system status to be displayed or shown.

1 14. The method of claim 12 wherein the memory is a flash memory.

1 15. The method of claim 12 wherein the board further includes control logic.

1 16. The method of claim 15 wherein the board further includes a push button; and  
2 wherein the control logic further includes a one-button init connector, coupled with the push  
3 button, for restoring the server to a default state in response to the push button being  
4 depressed for a particular time.

1 17. The method of claim 15 wherein the board further includes a push button; and  
2 wherein the control logic further includes a shut-down connector, coupled with the push  
3 button, the shut-down connector shutting down the server gracefully if the push button is  
4 pressed for a particular time.

1           18.     The method of claim 15 wherein the control logic further includes a power-on  
2 connector; wherein the computing device includes a system board; and wherein the control  
3 logic further includes a power-on connector connecting to a power-on connector of the  
4 system board for the computing device, coupled with the shut-down push button, the power-  
5 on connector further turns the power supply on if the push button is depressed when the  
6 computing device is supplied with AC power.

1           19.     The method of claim 15 further comprising the step of:  
2                   providing a light emitting diode (LED) connector; and wherein the control  
3 logic further includes a status LED connector coupled with the LED for indicating a  
4 operating status of the system.

1           20.     The method of claim 15 further comprising the step of:  
2                   providing a light emitting diode (LED) connector; and wherein the control  
3 logic further includes a power-on LED connector coupled with the LED for indicating a  
4 power status of the system.

1           21.     The method of claim 15 further comprising the step of:  
2                   providing a liquid crystal display (LCD) connector; and wherein the control  
3 logic further includes a LCD display connector coupled with the LCD for displaying a  
4 operating status of the system.

1           22.     The method of claim 12 wherein the bus interface logic, the local USB

2 control logic, the flash memory and a set of control button connectors, light emitting diodes  
3 (LED) connectors and a liquid crystal display (LCD) connector, are incorporated into a  
4 single board.

1 23. A method for providing a server-on-a-USB on a computing device, the  
2 computing device including at least a processor and an optional mass storage device, the  
3 method comprising the steps of:

4 (a) detecting a system for providing the server using bus interface logic in the  
5 system; accessing a USB Local Control Program on a **memory**;

6 (b) using the USB Local Control Program for preparing the computing device  
7 for use as the server; and

8 (c) booting up the server, for accessing **the** memory in the system for storing  
9 a server image for the server, the server image being provided to the computing device using  
10 the USB Local Control Program.

1 24. The method of claim 23 further comprising the steps of: using a plurality of  
2 control button connectors allowing the server to be turned on, shut down gracefully, or  
3 restored to its initial state, by a single press of buttons connected to the plurality of control  
4 button connectors. using the LED and LCD connectors allowing the system status to be  
5 displayed or shown.